FINAL DRAFT/PROPOSED CAAPP PERMIT
Ameren Energy Generating Company
Grand Tower Plant
I.D. No.: 077806AAA
Application No.: 95090008
October 9, 2003

217/782-2113

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT[1]

PERMITTEE

Ameren Energy Generating Company
Attn: Michael L. Menne
1901 Chouteau Avenue
St. Louis, MO 63103

Application No.: 95090008 I.D. No.: 077806AAA
Applicant's Designation: Date Received: September 01, 1995
Operation of: Electrical Power Generation at Grand Tower
Date Issued: TO BE DETERMINED Expiration Date[2]: DATE
Source Location: 1820 Power Plant Road, Grand Tower, Jackson County
Responsible Official: John W. Scott, Manager, Grand Tower Power Station

This permit is hereby granted to the above-designated Permittee to operate an electrical power generation station, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

The current federal Phase II Acid Rain Permit issued to Ameren Energy Generating Company by the Illinois EPA is incorporated into this CAAPP permit (See Attachment 3).

If you have any questions concerning this permit, please contact Manish Patel at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:MNP

cc: Illinois EPA, FOS, Region 3
USEPA

[1]This permit contains terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 – federal PSD and 35 IAC Part 203 – Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

[2]Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Ameren Energy Generating Company – Grand Tower Power Station
1820 Power Plant Road
Grand Tower, IL 62942
618/565-8787
I.D. No.: 077806AAA
Acid Rain Permit ORIS Code No.: 862

Standard Industrial Classification: 4911, Electrical Services

1.2 Owner/Parent Company

Ameren Energy Generating Company
1901 Chouteau Avenue
St. Louis, MO 63103

1.3 Operator

Ameren Energy Generating Company
1901 Chouteau Avenue
St. Louis, MO 63103

Steven C. Whitworth
314/554-4908

1.4 General Source Description

Grand Tower power station is located at 1820 Power Plant Road, Grand Tower in Jackson County. The source operates two natural gas fired combustion turbines/heat recovery steam generators with duct burners to generate electrical power.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
EGU	Electrical generating unit(s)
ERMS	Emissions Reduction Market System (35 IAC Part 205)
ESP	Electro Static Precipitator
FGC	Flue Gas Conditioning
HAP	Hazardous Air Pollutant
HHV	High Heating Value
Hr	Hour
HRSG	Heat Recovery Steam Generator
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
Kw	Kilowatts
LAER	Lowest Achievable Emission Rate
Lb	Pound
LHV	Low Heating Value
LNB	Low NO_x Burners
MACT	Maximum Achievable Control Technology
mmBtu	Million British thermal units
Mg	megagram or metric ton
MW	Megawatts
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSSA	new source set-aside
ORIS	Office of Regulatory Information System
OFA	Over-Fire Air system
PADB	Primary Air Duct Burners
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration (40 CFR 52.21)
RMP	Risk Management Plan
SO_2	Sulfur Dioxide
T	ton (2000 pounds)
T1	Title I - identifies Title I conditions that have been

	carried over from an existing permit
T1N	Title I New – identifies Title I conditions that are being established in this permit
T1R	Title I Revised – identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material
VOL	Volatile Organic Liquid

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Two natural gas fired Indirect Heaters (IH-01 and IH-02)

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

Bin Vent Filter

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the

Permittee shall comply with the following requirements, as applicable:

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182.

3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.

3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Emission Control Equipment
CT-01	Natural gas fired turbine (2,050 mmBtu/hr nominal heat input)	Low NO_x combustors, SCR, good combustion practices
HRSG-01	Heat Recovery Steam Generator with duct burners (297 mmBtu/hr nominal heat input)	
CT-02	Natural gas fired turbine (2,050 mmBtu/hr nominal heat input)	Low NO_x combustors, SCR, good combustion practices
HRSG-02	Heat Recovery Steam Generator with duct burners (333 mmBtu/hr nominal heat input)	

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of SOx, CO, NOx, VOM, HAP, and PM emissions.

5.1.2 This permit is issued based on the source requiring a CAAPP permit as an "affected source" for the purposes of Acid Deposition Control, Title IV of the Clean Air Act.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement shall be based on the procedures in Section 7 (Unit Specific Conditions) of this permit.

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

5.2.3 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the

standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.4 Risk Management Plan (RMP)

Should this stationary source pursuant to 40 CFR 68.215(a)(2)(i) and (ii), as defined in 40 CFR 68.3, become subject to the federal rules for Chemical Accident Prevention in 40 CFR Part 68, then the owner or operator shall submit:

a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or

b. A certification statement that the source is in compliance with all applicable requirements of 40 CFR Part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by Condition 9.8.

5.2.5 Future Emission Standards

a. Should this source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC Subtitle B after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 9.8.

Note: This permit may also have to be revised or reopened to address such new regulations. (See Condition 9.12.2.)

b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable regulations under 40 CFR Parts 60, 61, or 63, or 35 IAC Subtitle B that were promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

a. Pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe

operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.

c. If an operational change occurs at the source that invalidates the plan, a revised plan shall be submitted to the Illinois EPA for review within 30 days of the change, pursuant to 35 IAC 244.143(d). Such plans shall be further revised if disapproved by the Illinois EPA.

d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:

i. Illinois EPA, Compliance Section.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	126.1
Sulfur Dioxide (SO_2)	17.6
Particulate Matter (PM)	105.9
Nitrogen Oxides (NO_x)	1911.5
HAP, not included in VOM or PM	-
TOTAL	2161.1

5.5.2 Emissions of Hazardous Air Pollutants (HAPs)

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, state rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.6 General Recordkeeping Requirements

5.6.1 General Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.2 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such

deviations, and any corrective actions or preventive measures taken.

i. For emissions units that are addressed by the unit-specific conditions of this permit, the timing for reporting of deviations shall be in accordance with such conditions.

ii. A. For other emissions units and activities at the source, the timing for reporting of deviations shall be in accordance with the provisions of relevant regulations if such provisions address timing of deviation reports.

B. Otherwise, if the relevant regulations do not address timing of deviation reports, deviation reports shall be submitted within 30 days.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year as specified by 35 IAC Part 254 (see also Condition 9.7).

5.8 General Operational Flexibility/Anticipated Operating Scenarios

None

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and Compliance Procedures in Section 7 (Unit Specific Conditions) of this permit.

6.0 EMISSIONS CONTROL PROGRAMS

6.1 NO_x Trading Program

6.1.1 Description of NO_x Trading Program

The NO_x Trading Program is a regional "cap and trade" market system for large sources of NO_x emissions in the eastern United States, including Illinois. It is designed to reduce and maintain NO_x emissions from the emission units covered by the program within a budget to help contribute to attainment and maintenance of the ozone ambient air quality standard in the multi-state region covered by the program, as required by Section 110(a)(2)(D) of the CAA. The NO_x Trading Program applies in addition to other applicable requirements for NO_x emissions and in no way relaxes these other requirements.

Electrical generating units (EGU) that are subject to the NO_x Trading Program are referred to as "budget EGU." Sources that have one or more EGU or other units subject to the NO_x Trading Program are referred to as budget sources.

The NO_x Trading Program controls NO_x emissions from budget EGU and other budget units during a seasonal control period from May 1 through September 30 of each year, when weather conditions are conducive to formation of ozone in the ambient air. (In 2004, the first year that the NO_x Trading Program is in effect, the control period will be May 31 through September 30.) By November 30 of each year, the allowance transfer deadline, each budget source must hold "NO_x allowances" for the actual NO_x emissions of its budget units during the preceding control period. The USEPA will then retire NO_x allowances in the source's accounts in amounts equivalent to its seasonal emissions. If a source does not have sufficient allowances in its accounts, USEPA would subtract allowances from the source's future allocation for the next control period and impose other penalties as appropriate. Stringent monitoring procedures developed by USEPA apply to budget units to assure that actual emissions of NO_x emissions are accurately determined.

The number of NO_x allowances available for budget sources is set by the overall budget for NO_x emissions established by USEPA. This budget requires a substantial reduction in NOx emissions from historical levels as necessary to meet air quality goals. In Illinois, existing budget sources initially receive their allocation or share of the NO_x allowances budgeted for EGU in an amount determined by rule [35 IAC Part 217, Appendix F]. Between 2007 and 2011, the allocation mechanism for existing EGU gradually shifts to one based on the actual operation of EGU in preceding control periods. New budget EGU, for which limited operating data may be available, may obtain NOx

allowances from the new source set-aside (NSSA), a portion of the overall budget reserved for new EGU.

In addition to directly receiving or purchasing NO_x allowances as described above, budget sources may transfer NO_x allowances from one of their units to another. They may also purchase allowances in the marketplace from other sources that are willing to sell some of the allowances that they have received. Each budget source must designate an account representative to handle all its allowance transactions. The USEPA, in a central national system, will maintain allowance accounts and record transfer of allowances among accounts.

The ability of sources to transfer allowances will serve to minimize the costs of reducing NO_x emissions from budget units to comply with the overall NO_x budget. In particular, the NO_x emissions of budget units that may be most economically controlled will be targeted by sources for further control of emissions. This will result in a surplus of NO_x allowances from those units that can be transferred to other units at which it is more difficult to control NO_x emissions. Experience with reduction of sulfur dioxide emissions under the federal Acid Rain program has shown that this type of trading program not only achieves regional emission reductions in a more cost-effective manner but also results in greater overall reductions than application of traditional emission standards to individual emission units.

The USEPA developed the plan for the NO_x Trading Program with assistance from affected states. Illinois' rules for the NO_x Trading Program for EGU are located at 35 IAC Part 217, Subpart W, and have been approved by the USEPA. These rules provide for interstate trading, as mandated by Section 9.9 of the Act. Accordingly, these rules refer to and rely upon federal rules at 40 CFR Part 96, which have been developed by USEPA for certain aspects of the NO_x Trading Program, and which an individual state must follow to allow for interstate trading of allowances.

Note: This narrative description of the NO_x Trading Program is for informational purposes only and is not enforceable.

6.1.2 Applicability

a. The following emission units at this source are budget EGU for purposes of the NO_x Trading Program. Accordingly, this source is a budget source and the Permittee is the owner or operator of a budget source and budget EGU. In this section of this permit, these emission units are addressed as budget EGU.

Combined Cycle System 01 (CT/HRSG - 01 repowered Boiler 7 and Boiler 8)

Combined Cycle System 02 (CT/HRSG - 02 repowered Boiler 9)

b. This permit does not provide "low-emitter status" for the above emission units pursuant to 35 IAC 217.754(c).

6.1.3 General Provisions of the NO_x Trading Program

a. This source and the budget EGU at this source shall comply with all applicable requirements of Illinois' NO_x Trading Program, i.e., 35 IAC Part 217, Subpart W, and 40 CFR Part 96 (excluding 40 CFR 96.4(b) and 96.55(c), and excluding 40 CFR 96, Subparts C, E, and I), pursuant to 35 IAC 217.756(a) and 217.756(f)(2).

b. Any provision of the NO_x Trading Program that applies to a budget source (including any provision applicable to the account representative of a budget source) shall also apply to the owner and operator of such budget source and to the owner and operator of each budget EGU at the source, pursuant to 35 IAC 217.756(f)(3).

c. Any provision of the NO_x Trading Program that applies to a budget EGU (including any provision applicable to the account representative of a budget EGU) shall also apply to the owner and operator of such budget EGU. Except with regard to requirements applicable to budget EGUs with a common stack under 40 CFR 96, Subpart H, the owner and operator and the account representative of one budget EGU shall not be liable for any violation by any other budget EGU of which they are not an owner or operator or the account representative, pursuant to 35 IAC 217.756(f)(4).

6.1.4 Requirements for NO_x Allowances

a. Beginning in 2004, by November 30 of each year, the allowance transfer deadline, the account representative of each budget EGU at this source shall hold allowances available for compliance deduction under 40 CFR 96.54 in the budget EGU's compliance account or the source's overdraft account in an amount that shall not be less than the budget EGU's total tons of NO_x emissions for the preceding control period, rounded to the nearest whole ton, as determined in accordance with 40 CFR 96, Subpart H, plus any number necessary to account for actual utilization (e.g., for testing, start-up, malfunction, and shut down) under 40 CFR 96.42(e) for the control period, pursuant to 35 IAC 217.756(d)(1). For purposes of this requirement, an allowance may not be utilized for a control period in a year prior to the year for which the allowance is allocated, pursuant to 35 IAC 217.756(d)(5).

b. The account representative of a budget EGU that has excess emissions in any control period, i.e., NO_x emissions in excess of the number of NOx allowances held as provided above, shall surrender allowances as required for deduction under 40 CFR 96.54(d)(1), pursuant to 35 IAC 217.756(f)(5). In addition, the owner or operator of a budget EGU that has excess emissions shall pay any fine, penalty, or assessment, or comply with any other remedy imposed under 40 CFR 96.54(d)(3) and the Act, pursuant to 35 IAC 217.756(f)(6). Each ton of NOx emitted in excess of the number of NO_x allowances held as provided above for each budget EGU for each control period shall constitute a separate violation of 35 IAC Part 217 and the Act, pursuant to 35 IAC 217.756(d)(2).

c. An allowance allocated by the Illinois EPA or USEPA under the NO_x Trading Program is a limited authorization to emit one ton of NO_x in accordance with the NO_x Trading Program. As explained by 35 IAC 217.756(d)(6), no provisions of the NO_x Trading Program, the budget permit application, the budget permit, or a retired unit exemption under 40 CFR 96.5 and no provision of law shall be construed to limit the authority of the United States or the State of Illinois to terminate or limit this authorization. As further explained by 35 IAC 217.756(d)(7), an allowance allocated by the Illinois EPA or USEPA under the NO_x Trading Program does not constitute a property right. As provided by 35 IAC 217.756(d)(4), allowances shall be held in, deducted from, or transferred among allowances accounts in accordance with 35 IAC Part 217, Subpart W, and 40 CFR 96, Subparts F and G.

6.1.5 Monitoring Requirements for Budget EGU

a. The Permittee shall comply with the monitoring requirements of 40 CFR Part 96, Subpart H, for each budget EGU and the compliance of each budget EGU with the emission limitation under Condition 6.1.4(a) shall be determined by the emission measurements recorded and reported in accordance with 40 CFR 96, Subpart H, pursuant to 35 IAC 217.756(c)(1), (c)(2) and (d)(3).

b. The account representative for the source and each budget EGU at the source shall comply with those sections of the monitoring requirements of 40 CFR 96, Subpart H, applicable to an account representative, pursuant to 35 IAC 217.756(c)(1) and (d)(3).

Note: Pursuant to 40 CFR 96.70(b), existing budget EGU were to begin complying with applicable monitoring requirements of 40 CFR Part 96 at least one year in

advance of the start of the first control period governed by the NO_x Trading Program.

6.1.6 Recordkeeping Requirements for Budget EGU

Unless otherwise provided below, the Permittee shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This 5-year period may be extended for cause at any time prior to the end of the 5 years, in writing by the Illinois EPA or the USEPA.

a. The account certificate of representation of the account representative for the source and each budget EGU at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 40 CFR 96.13, as provided by 35 IAC 217.756(e)(1)(A). These certificates and documents must be retained on site at the source for at least 5-years after they are superseded because of the submission of a new account certificate of representation changing the account representative.

b. All emissions monitoring information, in accordance with 40 CFR 96, Subpart H, (provided that to the extent that 40 CFR 96, Subpart H, provides for a 3-year period for retaining records, the 3-year period shall apply), pursuant to 35 IAC 217.756(e)(1)(B).

c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_x Trading Program or documents necessary to demonstrate compliance with requirements of the NO_x Trading Program, pursuant to 35 IAC 217.756(e)(1)(C).

d. Copies of all documents used to complete a budget permit application and any other submission under the NO_x Trading Program, pursuant to 35 IAC 217.756(e)(1)(D).

6.1.7 Reporting Requirements for Budget EGU

a. The account representative for this source and each budget EGU at this source shall submit to the Illinois EPA and USEPA the reports and compliance certifications required under the NO_x Trading Program, including those under 40 CFR 96, Subparts D and H, and 35 IAC 217.774, pursuant to 35 IAC 217.756(e)(2).

b. Notwithstanding the provisions in Conditions 9.8 and 9.9 of this CAAPP permit, these submittals need only be signed by the designated representative, who may serve in place of the responsible official for this purpose, as provided by Section 39.5(1) of the Act,

and submittals to the Illinois EPA need only be made to the Illinois EPA, Air Compliance Section.

6.1.8 Allocation of NO_x Allowances to Budget EGU

a. As the budget EGU identified in Condition 6.1.2(a) are "existing" EGU listed in 35 IAC Part 217, Appendix F, these EGU are entitled to NO_x allowances as follows. (The portion of Appendix F that applies to the Permittee is provided in Condition 6.1.12.) The number of NO_x allowances actually allocated for the budget EGU shall be the number of NO_x allowances issued by USEPA pursuant to the allocation information reported to it by the Illinois EPA, which information may reflect adjustments to the overall allocations to budget EGU as provided for by 35 IAC 217.760(b) and (c):

i. In 2004 through 2006 (the first three years of the NO_x Trading Program), an annual allocation of NO_x allowances as specified by 35 IAC 217.764(a)(1), i.e., the number of NO_x allowances listed in Appendix F, Column 7, and as provided by 35 IAC 217.768(j), a pro-rata share of any NO_x allowances remaining in the new source set-aside (NSSA) following the allocation of allowances to new budget EGU.

ii. In 2007, as provided by 35 IAC 217.764(b), an allocation of NO_x allowances as specified by 35 IAC 217.764(b)(1), i.e., the number of NO_x allowances listed in Appendix F, Column 8, and as provided by 35 IAC 217.764(b)(4), a pro-rata share of any NO_x allowances remaining after the allocation of allowances pursuant to 35 IAC 217.764(b)(2) to budget EGU that commence operation between January 1, 1995 and April 30, 2003.

iii. In 2008, as provided by 35 IAC 217.764(c), a specified allocation of NO_x allowances, i.e., the number of NO_x allowances listed in Appendix F, Column 8, and a pro-rata share of any NO_x allowances remaining after the allocation of allowances to budget EGU that commence operation between January 1, 1995 and April 30, 2004.

iv. In 2009, as provided by 35 IAC 217.764(d), a specified allocation of NO_x allowances, i.e., the number of NO_x allowances listed in Appendix F, Column 9, and a pro-rata share of any NO_x allowances remaining after the allocation of NO_x allowances to budget EGU that commence operation between January 1, 1995 and April 30, 2005, and as provided by 35 IAC 217.764(d)(6), a pro-rata share of any surplus of NO_x allowances in the NSSA after the allocation of NO_x allowances to new budget EGU pursuant to 35 IAC 217.764(d)(5).

v. In 2010, as provided by 35 IAC 217.764(e), a specified allocation of NO_x allowances, i.e., the number of NO_x allowances listed in Appendix F, Column 9, and a pro-rata share of any NO_x allowances remaining after the allocation of NO_x allowances to budget EGU that commence operation between January 1, 1995 and April 30, 2006, and a pro-rata share of any surplus of NO_x allowances in the NSSA following the allocation of NO_x allowances to new budget EGU.

vi. In 2011 and annually thereafter, as provided by 35 IAC 217.764(f), an allocation of NO_x allowances based on the prior operation of the EGU during previous control periods and a pro-rata share of any surplus of NO_x allowances in the NSSA following the allocation of NO_x allowances to new budget EGU.

Note: If the start of the NO_x Trading program is shifted because of a Court Decision, the years defining the different control periods would be considered to be adjusted accordingly, as provided by the Board note following 35 IAC 217.764.

b. In accordance with 35 IAC 217.762, the theoretical number of NO_x allowances for the budget EGU listed in Condition 6.1.2(a), calculated as the product of the applicable NO_x emissions rate and heat input as follows, shall be the basis for determining the pro-rata share of NO_x allowances for the budget EGU and the allocation of NO_x allowances to the budget EGU based on their prior operation:

i. The applicable NO_x emission rate for the budget EGU shall be 0.15 lb/mmBtu, as specified by 35 IAC 217.762(a)(1).

ii. The applicable heat input (mmBtu/control period) shall be the average of the two highest heat inputs from the control periods four to six years prior to the year for which the allocation is being made, as provided by 35 IAC 217.762(b)(1).

6.1.9 Eligibility for NO_x Allowances from the New Source Set-Aside (NSSA)

The Permittee is not eligible to obtain NO_x allowances for the budget EGU identified in Condition 6.1.2(a) from the NSSA, as provided by 35 IAC 217.768, because the budget EGU are “existing” budget EGU.

6.1.10 Eligibility for Early Reduction Credits (ERC)

The Permittee is eligible to request NO_x allowances for the budget EGU identified in Condition 6.1.2(a) for any

early reductions in NO_x emissions, as provided by 35 IAC 217.770.

6.1.11 Budget Permit Required by the NO_x Trading Program

a. For this source, this segment of the CAAPP Permit, i.e., Section 6.1, is the Budget Permit required by the NO_x Trading Program and is intended to contain federally enforceable conditions addressing all applicable NO_x Trading Program requirements. This Budget Permit shall be treated as a complete and segregable portion of the source's entire CAAPP permit, as provided by 35 IAC 217.758(a)(2).

b. The Permittee and any other owner or operator of this source and each budget EGU at the source shall operate the budget EGU in compliance with this Budget Permit, pursuant to 35 IAC 217.756(b)(2).

c. No provision of this Budget Permit or the associated application shall be construed as exempting or excluding the Permittee, or other owner or operator and, to the extent applicable, the account representative of a budget source or budget EGU from compliance with any other regulation or requirement promulgated under the CAA, the Act, the approved State Implementation Plan, or other federally enforceable permit, pursuant to 35 IAC 217.756(g).

d. Upon recordation by USEPA under 40 CFR 96, Subpart F or G, or 35 IAC 217.782, every allocation, transfer, or deduction of an allowance to or from the budget units' compliance accounts or to or from the overdraft account for the budget source is deemed to amend automatically, and become part of, this budget permit, pursuant to 35 IAC 217.756(d)(8). This automatic amendment of this budget permit shall be deemed an operation of law and will not require any further review.

e. No revision of this Budget Permit shall excuse any violation of the requirements of the NO_x Trading Program that occurs prior to the date that the revisions to this permit takes effect, pursuant to 35 IAC 217.756(f)(1).

f. The Permittee, or other owner or operator of the source, shall reapply for a Budget Permit for the source as required by 35 IAC Part 217, Subpart W and Section 39.5 of the Act. For purposes of the NO_x Trading Program, the application shall contain the information specified by 35 IAC 217.758(b)(2).

6.1.12 References

35 IAC Part 217 Appendix F - (provisions applicable to the Permittee)

Company Name/ I.D. No.	Generating Unit	EGU	NOx Budget Allowances	80% of NOx Budget Allowances	50% of NOx Budget Allowances	2004, 2005, 2006 Allowances	2007, 2008 Allowances	2009, 2010 Allowances
1	2	3	4	5	6	7	8	9
077806AAA	G. Tower 3	Boiler 7	55	44	28	52	43	27

077806AAA	G. Tower 3	Boiler 8	44	35	22	42	35	22
077806AAA	G. Tower 4	Boiler 9	199	159	100	189	156	98

6.2 Acid Rain Program

6.2.1 Applicability

Under Title IV of the CAA, Acid Deposition Control, this source is an affected source and the following emission units at the source are affected units for acid deposition:

CT/HRSG – 01 and CT/HRSG - 02

Note: Title IV of the CAA, and other laws and regulations promulgated thereunder, establish requirements for affected sources related to control of emissions of pollutants that contribute to acid rain. For purposes of this permit, these requirements are referred to as Title IV provisions.

6.2.2 Applicable Emission Requirements

The owners and operators of the source shall not violate applicable Title IV provisions. In particular, SO_2 emissions of the affected units shall not exceed any allowances that the source lawfully holds under Title IV provisions. [Section 39.5(7)(g) and (17)(l) of the Act]

Note: Affected sources must hold SO_2 allowances to account for the SO_2 emissions from affected units at the source that are subject to Title IV provisions. Each allowance is a limited authorization to emit up to one ton of SO_2 emissions during or after a specified calendar year. The possession of allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

6.2.3 Monitoring, Recordkeeping and Reporting

The owners and operators of the source and, to the extent applicable, their designated representative, shall comply with applicable requirements for monitoring, recordkeeping and reporting specified by Title IV provisions, including 40 CFR Part 75. [Section 39.5(7)(b) and 17(m) of the Act]

Note: As further addressed by Section 7 of this permit, the following emission determination methods are currently being used for the affected units at this source.

NO_x: Continuous Emissions Monitoring (40 CFR 75.12)

6.2.4 Acid Rain Permit

The owners and operators of the source shall comply with the terms and conditions of the source’s Acid Rain permit. [Section 39.5(17)(l) of the Act]

Note: The source is subject to an Acid Rain permit, which was issued pursuant to Title IV provisions, including

Section 39.5(17) of the Act. Affected sources must be operated in compliance with their Acid Rain permits. This source's Acid Rain permit is incorporated by reference into this permit and a copy of the current Acid Rain permit is included as Attachment 3 of this permit. Revisions and modifications of this Acid Rain permit, including administrative amendments and automatic amendments (pursuant to Sections 408(b) and 403(d) of the CAA or regulations thereunder) are governed by Title IV provisions, as provided by Section 39.5(13)(e) of the Act. Accordingly, revision or renewal of the Acid Rain permit may be handled separately from this CAAPP permit and a copy of the new Acid Rain permit may be included in this permit by administrative amendment.

6.2.5 Coordination with Other Requirements

a. This permit does not contain any conditions that are intended to interfere with or modify the requirements of Title IV provisions. In particular, this permit does not restrict the flexibility under Title IV provisions of the owners and operators of this source to amend their Acid Rain compliance plan. [Section 39.5(17)(h) of the Act]

b. Where another applicable requirement of the CAA is more stringent than an applicable requirement of Title IV provisions, both requirements are incorporated into this permit and are enforceable and the owners and operators of the source shall comply with both requirements. [Section 39.5(7)(h) of the Act]

7.0 UNIT SPECIFIC CONDITIONS

7.1 Turbines and Supplementary-fired Heat Recovery Steam Generators

7.1.1 Description

Combined-cycle combustion turbines (CT) are used to generate electricity. In a combined cycle turbine configuration, the turbine exhaust to a Heat Recovery Steam Generator (HRSG). A generator located on the shaft of each turbine provides a portion of the electric output. The steam produced from the associated HRSG is routed to the steam turbine generating unit to provide additional electrical output. The HRSG can be supplementary-fired with a burner in duct between the CT and the HRSG, to increase the power output from the HSRG when needed to meet the demand.

There are two CT/HRSG systems at the plant. The systems are fired with natural gas only. These systems were installed pursuant to Construction Permit number 99080101 to replace three coal-fired boilers previously operated at the site (CT-01 replaced two boilers and CT-02 replaced the third boiler, which was larger.) The plant has nominal capacity to generate up to about 600 MW of electricity.

Nitrogen oxide (NOx) emissions from the CT/HRSG systems are controlled with dry low NOx burners and Selective Catalytic Reduction system (SCR). The Permittee currently plans to operate the SCR on as needed basis to meet requirements of NOx Trading program. Carbon monoxide (CO) and volatile organic material (VOM) emissions from the CT/HRSG systems are controlled by good combustion practices.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
CT-01	Natural gas fired turbine (2,050 mmBtu/hr nominal heat input)	Low NO_x combustors, SCR, good combustion practices
HRSG-01	Heat Recovery Steam Generator with duct burners (297 mmBtu/hr nominal heat input)	
CT-02	Natural gas fired turbine (2,050 mmBtu/hr nominal heat input)	Low NO_x combustors, SCR, good combustion practices
HRSG-02	Heat Recovery Steam Generator with duct burners (333 mmBtu/hr nominal heat input)	

7.1.3 Applicability Provisions and Applicable Regulations

a. An “affected turbine”, “affected HRSG”, and “affected CT/HRSG system” for the purpose of these unit-specific

conditions, are the units described in Conditions 7.1.1 and 7.1.2.

b. i. When the duct burner in an affected HRSG is not being fired, the emission of smoke or other particulate matter from the affected CT/HRSG system shall not have an opacity greater than 30 percent, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 201.149, 212.123(b) or 212.124.

ii. When the duct burner in an affected HRSG is being fired, the emission of smoke or other particulate matter from the affected CT/HRSG system shall not have an opacity greater than 20 percent, pursuant to 40 CFR 60.42a(b), except for one 6-minute period per hour of not more than 27 percent opacity, as further allowed by 40 CFR 60.42a(b).

c. i. The affected turbines are subject to the New Source Performance Standard (NSPS) for Stationary Gas Turbines, 40 CFR 60, Subpart A and GG, because the heat input at peak load is equal to or greater than 10 mmBtu/hr, based on the lower heating value of the fuel fired and the affected turbines commenced construction, modification, or reconstruction after October 3, 1977. The Illinois EPA is administrating NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

A. Standard for Nitrogen Oxides:

Pursuant to 40 CFR 60.332(b), electric utility stationary gas turbines with a heat input at peak load greater than 100 million Btu/hour based on the lower heating value of the fuel fired shall comply with the provisions of 40 CFR 60.332(a)(1). Pursuant to 40 CFR 60.332(a)(1), no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075 \frac{(14.4)}{Y} + F$$

Where:

STD = Allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO_x emission allowance for fuel-bound nitrogen calculated from the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	F (NO_x percent by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	0.004 + 0.0067(N - 0.1)
$N > 0.25$	0.005

Where:

N = The nitrogen content of the fuel (percent by weight) determined in according with Condition 7.1.8.

B. Standard for Sulfur Dioxide

I. No owner or operator of an affected turbine shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis [40 CFR 60.333(a)], or

II. No owner or operator of an affected turbine shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight [40 CFR 60.333(b)].

ii. The duct burners in the affected HRSG are subject to the NSPS for Electric Utility Steam Generating Units, 40 CFR 60 Subparts A and Da, because the construction, modification, or reconstruction is commenced after September 18, 1978 and has design heat input capacity of more than 73 megawatts (MW) (250 million Btu/hour). The Illinois EPA is administrating NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

A. Standard for Nitrogen Oxides:

The NO_X emissions from each affected HRSG shall not exceed the limit established by the NSPS except during periods of startup, shutdown, or malfunction, pursuant to 40 CFR 60.44a(d)(1) and 40 CFR 60.46a(c). Compliance with this limit shall be determined by the alternative methodology specified by USEPA in its letter of approval dated March 22, 2001 (see Attachment 4), unless the Permittee notifies the Illinois EPA that it will be complying by means of the established methodology in 40 CFR 60 Subpart Da.

Note: This alternative methodology allows compliance to be shown for each affected CT/HRSG system as a whole, as rolling average of 24 operating hours, calculated based on the continuous emission monitoring system measurements for the CT/HRSG system coupled with the gross electrical output (MW-hr) and heat input to the CT/HRSG system.

B. Standard for Sulfur Dioxide (SO_2)

The SO_2 emissions from each affected HRSG shall not exceed 0.20 lb/mmBtu except during periods of startup, shutdown, or emergency conditions exist, pursuant to 40 CFR 60.43a(b)(2) and 40 CFR 60.46a(c).

C. Standard for Particulate Matter (PM)

The PM emissions from each affected HRSG shall not exceed 0.03 lb/mmBtu except during periods of startup, shutdown, or malfunction, pursuant to 40 CFR 40 CFR 60.42a(a)(1) and 40 CFR 60.46a(c).

Note: Compliance with this PM standard for the affected HRSG is assured by compliance with the more stringent hourly PM emission limit in Condition 7.1.6(c) for the affected CT/HRSG system. For example, the equivalent hourly limit for HRSG-01 duct burners would be: 0.03 lb/mmBtu * 297 mmBtu/hr = 8.91 lb/hr; whereas PM emission limit for the complete CT/HRSG system with turbine and duct burners total heat input of 2347 mmBtu/hr is 11.9 lb/hour. Thus, compliance with the hourly emission limit for the affected CT/HRSG system with duct burners assures compliance with the NSPS standard for the affected HRSG.

d. The affected HRSGs are subject to 35 IAC 216.121 which provides that no person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 10 mmBtu/hr to exceed 200 ppm, corrected to 50 percent excess air.

e. The NOx emissions from each affected HRSG shall not exceed 0.20 lb/mmBtu of actual heat input, pursuant to 35 IAC 217.121(a).

Note: This NOx emission standard is less stringent than the NSPS standard [Condition 7.1.3(c)(ii)(A)] for the affected HRSG. Thus, compliance with this emission standard is assured by compliance with more stringent NSPS standard in Condition 7.1.3(c)(ii)(A).

f. i. During each ozone control period (May 1 through September 30):

A. The emissions of NOx from each CT/HRSG system shall not exceed 0.25 lb/mmBtu of actual heat input based on a ozone control period average, for that unit, pursuant to 35 IAC 217.706(a).

B. The emissions of NOx from an affected CT/HRSG system and other eligible EGU that are participating in a NOx averaging demonstration with an affected CT/HRSG system as provided for by 35 IAC 217.708, shall not exceed 0.25 lbs/mmBtu of actual heat input, as averaged for the ozone control period for these EGU, pursuant to 35 IAC 217.708(a) and (b). For this purpose, other eligible EGU include: (1) other affected CT/HRSG system, (2) other EGU owned and operated by the Permittee at its plants in Hutsonville (ID: 033801AAA), Coffeen (ID: 135803AAA), Meredosia (ID: 137805AAA), Newton (ID: 003801AAA), Duck Creek (ID: 057801AAA), and Edwards (ID: 143805AAA), which are also authorized by this permit to participate in a NOx averaging demonstration, and (3) other EGU that are authorized to participate in a NOx averaging plan by a CAAPP permit or other federally enforceable permit issued to the owner or operator of those EGU.

ii. If the Permittee elects to have an affected CT/HRSG system comply by participation in a NOx averaging demonstration as provided for and authorized above:

A. The affected CT/HRSG system shall be included in only one NOx averaging

demonstration during an ozone control period, pursuant to 35 IAC 217.708(d).

B. The NOx averaging demonstration shall only include other EGU that are authorized through a federally enforceable permit to participate in a NOx averaging demonstration and for which the owner or operator of the EGU maintains the required records, data and reports and submits copies of such records, data, and reports to the Illinois EPA upon request, pursuant to 35 IAC 217.708(c) and (g).

C. The effect of failure of the NOx averaging demonstration to show compliance shall be that the compliance status of the affected CT/HRSG system shall be determined pursuant to Condition 7.1.3(f)(i)(A) as if the NOx emission rates of the affected CT/HRSG system were not averaged with other EGU, pursuant to 35 IAC 217.708(g).

Note: Given the emission determination methods specified by 35 IAC 217.710, the emissions of NOx for purposes of these standards are generally calculated in accordance with the federal Acid Rain Program and are different from the emissions determined for purposes of the NOx Trading Program.

g. Startup Provisions

The Permittee is authorized to operate each affected CT/HRSG system in violation of the applicable standards in Condition 7.1.3(b)(i) (35 IAC 212.123(a)) and the hourly limits of Conditions 7.1.6 during startup subject to the following provisions. This authorization is provided pursuant to 35 IAC 201.262, as the Permittee has affirmatively demonstrated that all reasonable efforts have been made to minimize startup emissions, duration of individual starts, and frequency of startups. This authorization is subject to the following requirements:

i. This authorization only extends for a period of up to 12 hours following initial firing of fuel for each startup event. As provided by 35 IAC 201.265, this authorization does not shield the Permittee from enforcement for any such violation and shall only constitute a prima facie defense to such an enforcement action.

ii. The Permittee shall conduct startup of an affected turbine in accordance with the manufacturers' written instructions or other written instructions prepared by the Permittee

and maintained on site, that are specifically developed to minimize excess emissions from startups and that include, at a minimum, the following measures:

A. Review of the operational condition of an affected turbine prior to initiating startup of the turbine.

B. Review of the operating parameters of an affected turbine during each startup as necessary to make appropriate adjustments to the startup to reduce or eliminate excess emissions.

iii. The Permittee shall fulfill applicable recordkeeping requirements of Condition 7.1.9(l).

h. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of an affected CT/HRSG system, the Permittee is authorized to continue operation of the affected CT/HRSG system in violation of the applicable requirement of Condition 7.1.3(b)(i) (35 IAC 212.123(a)) and the hourly limits of Conditions 7.1.6, as necessary to provide essential service, i.e. prevent interruption in or shortage of the public's electricity supply, provided that operation shall not be continued solely for the economic benefit of the Permittee or to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. Consistent with measures required in Condition 7.1.3(g)(ii), if the Permittee has maintained and operated an affected CT/HRSG system so that malfunctions are sudden, infrequent, not caused by poor maintenance or careless operation, and in general are not reasonably preventable, the Permittee shall begin shutdown of the CT/HRSG system within 90 minutes, unless the malfunction is expected to be repaired in 120 minutes or such shutdown could threaten the stability of the regional electrical power system. In such case, shutdown of the CT/HRSG system shall be undertaken when it is apparent that repair will not be accomplished within 120 minutes or shutdown would not endanger the regional power system. In no case shall shutdown of an affected CT/HRSG system be delayed solely for the economic benefit of the Permittee. Unless the Permittee obtains an extension from the Illinois EPA, this shall be accomplished within 2 hours*. The Permittee may obtain an

extension for up to a total of 24 hours* from the Illinois EPA, Air Regional Office. The Illinois EPA, Air Compliance Section, in Springfield, may grant a longer extension if the Permittee demonstrates that extraordinary circumstances exist and the affected CT/HRSG system can not reasonably be repaired or removed from service within the allowed time, it will repair the affected CT/HRSG system or remove the CT/HRSG system from service as soon as practicable; and it is taking all reasonable steps to minimize excess emissions, based on the actions that have been and will be taken.

* For this purpose and other related provisions, time shall be measured from the start of a particular incident. The absence of excess emissions for a short period shall not be considered to end the incident if excess emissions resume. In such circumstances, the incident shall be considered to continue until corrective actions are taken so that excess emissions cease or the Permittee takes the CT/HRSG system out of service.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.1.9(m) and 7.1.10(d).

7.1.4 Non-Applicability of Regulations of Concern

a. Each affected turbine is not subject to the requirements of 35 IAC 212.321, because the Illinois EPA has determined that this rule can not reasonably be applied due to the nature of such units, pursuant to 35 IAC 212.323.

b. Each affected turbine is not subject to 35 IAC 216.121 for CO and 35 IAC 217.121 for NOx, because an affected turbine is not by definition a fuel combustion unit.

c. Each affected turbine is not subject to 35 IAC 214.301, general limitation of 2000 ppm of SO_2, because compliance with this standard is inherent as natural gas is the only fuel fired in the affected turbine.

d. Each affected CT/HRSG system is not subject to the substantive requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources pursuant to 40 CFR 64.2(b)(1)(vi). In particular, for emissions of NOx, for which add-on control systems (SCR systems) are used as needed, this CAAPP permit specifies a continuous compliance determination method (continuous emissions monitoring)

be used to determine compliance with applicable limits.

7.1.5 Operational and Production Limits and Work Practices

a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the affected CT/HRSG systems in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].

b. The only fuels fired in the affected CT/HRSG systems shall be natural gas as defined in 40 CFR 60.41c.

c. When the duct burner in an affected CT/HRSG system is fired, the Permittee is hereby shielded from 35 IAC 212.122 and 35 IAC 212.123 [Condition 7.1.3(b)(i) and Condition 5.2.2(b)] for the affected boilers as it must comply with 40 CFR 60.42a(b) [Condition 7.1.3(b)(ii)]. This federal rule establishes an identical standard of general applicability, i.e., 20 percent opacity measured on a six minute average, as 35 IAC 212.122, the opacity standard for large new fuel combustion emission units. The Illinois EPA has determined that the exception in the federal rule, i.e., one 6-minute period per hour of up to 27 percent opacity, is comparable to the exception allowed by 35 IAC 212.122(b), i.e., up to three minutes aggregate per hour with up to 40 percent opacity and that for purpose of streamlined implementation and enforcement should be considered sufficient to show compliance with 35 IAC 212.122.

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected CT/HRSG systems are subject to the following:

a. Each affected CT/HRSG system shall use good combustion practices to reduce emissions of CO and VOM, which practices shall include routine operating practices, maintenance and repair practices, and other periodic assessments of the combustion performance of each affected CT/HRSG system to reasonably minimize emission of CO and VOM. These requirements and the requirements in Condition 7.1.6(b) below, constitute Best Available Control Technology (BACT), as originally established in Permit 99080101 [T1].

b. The emissions of CO and VOM from each affected CT/HRSG system shall not exceed the following hourly limits on an hourly average for the normal load range (65 – 100

percent load), except during malfunction as addressed by Condition 7.1.3(h). Compliance with the hourly limits shall be determined as a 3-hour block average for all pollutants consistent with testing, monitoring and recordkeeping requirements of Condition 7.1.7, Condition 7.1.8, and Condition 7.1.9, respectively.

Unit ID / Pollutant	lb/mmBtu	lb/hr
CT/HRSG 01:		
CO	0.0604	141.8
VOM	0.0060	14.0
CT/HRSG 02:		
CO	0.0607	144.6
VOM	0.0062	14.8

c. Emissions from each affected CT/HRSG system shall not exceed the following limits. The hourly limits apply at all times except during malfunction as addressed by Condition 7.1.3(h). Compliance with the hourly limits shall be determined as a 3-hour block average for all pollutants except NOx emissions (3-hour rolling average), consistent with testing, monitoring and recordkeeping requirements of Condition 7.1.7, Condition 7.1.8, and Condition 7.1.9, respectively.

Unit ID / Pollutant	lb/hr	ton/yr
CT/HRSG 01:		
NO_X	216.8	949.6
CO	141.8	621.1
VOM	14.0	61.3
PM/PM_{10}	11.9	52.1
SO_2	2.0	8.8
CT/HRSG 02:		
NO_X	219.6	961.9
CO	144.6	633.3
VOM	14.8	64.8
PM/PM_{10}	12.2	53.4
SO_2	2.0	8.8

The above limitations of Condition 7.1.6(c) were established in Permit 99080101 pursuant to the PSD rules [T1].

7.1.7 Testing Requirements

a. Within 90 days of the written request, the Permittee shall measure the CO and VOM concentrations in the exhaust of the affected CT/HRSG systems by an approved independent testing service to determine compliance with applicable CO and VOM limits pursuant to Section 39.5(7)(b) of the Act. The Illinois EPA may upon request of the Permittee provide more time for testing, if such time is reasonably needed to schedule and perform testing. Standard USEPA methods and procedures shall be used for emission testing unless another USEPA method is approved or specified by the Illinois EPA.

7.1.8 Monitoring Requirements

a. The Permittee shall install, operate, and maintain monitors to measure and record fuel consumption by each affected turbine and each affected HRSG.

b. i. The Permittee shall monitor sulfur content of the natural gas fired in the turbines pursuant to the applicable provisions in 40 CFR 75, Appendix D, Section 2.3 for pipeline natural gas combustion.

ii. Monitoring of fuel nitrogen content is not required, as natural gas is the only fuel fired in the affected turbines.

iii. The above provisions establish a custom schedule for determination of sulfur and nitrogen content of fuel in accordance with 40 CFR 60.334(b)(2), subject to case-specific approval by USEPA pursuant to 40 CFR 60.13(i).

c. i. If annual CO emissions of an affected CT/HRSG system exceed 570 tons/year in any calendar year or 470 tons/year on a three year rolling average, as determined based on emission rates measured during testing and actual fuel consumption of the CT/HRSG, the Permittee shall install, operate and maintain a CO continuous emission monitoring system on the CT/HRSG. The System shall be in place by December 31 of the following year [T1].

ii. At least 30 days prior to installing a CO CEM system, the Permittee shall submit to the Illinois EPA for review and comment a detailed monitoring plan. This plan shall describe the configuration and operation of the CO CEM system for each CT/HRSG [T1].

d. i. To demonstrate compliance with the NOx limits of this permit, the Permittee shall install, operate, and maintain a Continuous Emissions Monitoring (CEM) system on each affected CT/HRSG system to measure emissions of NO_X. The applicable procedures under 40 CFR 60.13, 60.47a(c) and 75.12 shall be followed for the installation, evaluation, and operation of this NO_X CEM system. In this regard, for purpose of 60.47a, USEPA has approved calculation of hourly heat input from fuel flow measurements, rather than from a stack flow monitor. USEPA has also approved reporting of monitored NO_X emission data for purposes of 40 CFR 60.332(a)(1) without correction to International Standards Organization (ISO) conditions, provided the records of the data needed to make such correction (ambient temperature and humidity)

are kept (refer to the Attachment 4 for USEPA letter dated March 22, 2001) [T1].

ii. These monitoring systems shall be operated and collect data in accordance with the applicable provisions of the Acid Rain Program.

iii. A. Pursuant to 35 IAC 217.710(a), the Permittee, shall install, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) for the measurements of NOx from each affected CT/HRSG system, in accordance with the requirements of 40 CFR 75 Subpart B.

B. Notwithstanding Condition 7.1.8(d)(iii)(A) above, the Permittee of each affected CT/HRSG system that operates less than 350 hour per ozone control period may determine the heat input and NOx emissions of the affected CT/HRSG system as follows [35 IAC 217.710(c)]:

I. Heat input shall be determined from the metered fuel usage to the affected CT/HRSG system or the calculated heat input determined as the product of the affected CT/HRSG system's maximum hourly heat input and hours of operation as recorded by operating instrumentation on the affected CT/HRSG system [35 IAC 217.710(c)(1)].

II. NOx emissions shall be determined as the product of the heat input as determined in Condition 7.1.8(d)(iii)(B)(I) and emission factors of 1.2 lbs/mmBtu for fuel oil and 0.7 lbs/mmBtu for natural gas [35 IAC 217.710(c)(2)].

e. The Permittee shall install, operate, and maintain a Continuous Emissions Monitoring (CEM) system on the affected CT/HRSG systems to measure emissions of SO_2 according to the applicable procedures under 40 CFR 75.11(d), or the Permittee shall conduct fuel monitoring for fuels fired in the affected CT/HRSG systems according to the procedures in 40 CFR 75, Appendix D.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected CT/HRSG systems to demonstrate compliance

with Conditions 5.5.1, 7.1.3, 7.1.5, 7.1.6, and 7.1.8, pursuant to Section 39.5(7)(b) of the Act:

a. The written instructions being followed by the Permittee as good combustion practices and good air pollution control practice to minimize emission in accordance with Condition 7.1.3(g)(ii) and Condition 7.1.6(a).

b. A maintenance and repair log for each affected CT/HRSG system, each SCR system** and each SCR reagent storage system**, listing activities performed with date.

c. Heat content of the fuel fired in each affected turbine and each affected HRSG, btu/scf.

d. The sulfur content of the fuel fired in each affected CT/HRSG system.

e. Fuel consumption for each affected turbine and each affected HRSG, scf/day and scf/year.

f. Steam production for the affected HRSGs, lb/day.

g. Each period when the duct burner in an affected HRSG was fired.

h. Record of the following items pertaining to SCR system**:

    i. Whether the SCR control system is in operation or not.

    ii. Type of reagent in use if SCR control is in use.

    iii. Manufacture/vendor or site developed operating and maintenance procedures.

    iv. Operating and maintenance logs and addition or replacement of a catalyst layer.

j. The Permittee shall maintain the following, if required:

    i. Any periods during which a continuous monitoring system was not operational, with explanation.

    ii. Any day in which emission and/or opacity exceeded an applicable standard or limit.

k. The owner or operator of each affected CT/HRSG system subject to the requirements of Condition 7.1.3(f) (35 IAC 217 Subpart V) shall:

    i. Comply with the recordkeeping and reporting requirements of 40 CFR 75 applicable to NOx

emissions during the ozone control period, including, but not limited to, 40 CFR 75.54(b) and (d) [35 IAC 217.712(a)].

ii. Notwithstanding 35 IAC 217.712(a) above, the owner or operator of a combustion turbine for which heat input and NOx emissions are determined pursuant to 35 IAC 217.710(c) (Condition 7.1.8(d)(iii)) shall comply with the following recordkeeping and reporting requirements [35 IAC 217.712(b)]:

A. Maintain records of the heat input and NOx emissions of each CT/HRSG system as determined in accordance with 35 IAC 217.710(c), and records of metered fuel use or operating hours used to determine heat input [35 IAC 217.712(b)(1)].

l. Records for Startup

The Permittee shall maintain the following records, pursuant to Section 39.5(7)(b) of the Act, for each affected CT/HRSG system subject to Condition 7.1.3(g), which at a minimum shall include the following information for each startup:

i. Date and duration of the startup, i.e., start time and time normal operation achieved.

ii. If normal operation was not achieved within 10 hours, an explanation why startup could not be achieved.

iii. An explanation why established startup procedures could not be performed, if not performed.

iv. The nature of opacity, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup, if above normal.

v. Whether exceedance of Condition 7.1.3(b) may have occurred during startup, with explanation and estimated duration (minutes).

m. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of each affected CT/HRSG system during malfunctions and breakdown, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown.

ii. A detailed explanation of the malfunction or breakdown.

iii. An explanation why the damaged feature(s) could not be repaired as soon as practicable or the affected CT/HRSG system could not be removed from service without risk of injury to personnel or severe damage to equipment.

iv. The measures used to reduce the quantity of emissions and the duration of the event.

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity.

vi. The amount of release above typical emissions during malfunction/breakdown.

n. The Permittee shall keep the following records with regards to emissions:

i. NO_X emissions from each affected CT/HRSG system recorded hourly, quarterly, and annual (in lb/mmBtu) by combining the NO_X concentration (in ppm) and diluent concentration (in percent O_2 or CO_2) measurements according to the procedures in 40 CFR 75 Appendix F.

ii. Monthly emissions of NO_X, CO, SO_2, VOM, and PM from each affected CT/HRSG system (ton/month). NO_X emissions shall be based on data from the CEM. All other emissions shall be calculated based on fuel consumption, relevant factors developed from emission test data and fuel composition, with supporting calculations.

iii. Annual facility emissions of NO_X, CO, SO_2, VOM, and PM, based on monthly emission totals.

** These requirements, which are applicable to the SCR system, shall only become effective upon starting of the SCR control use on a long-term basis.

7.1.10 Reporting Requirements

a. The affected CT/HRSG systems shall comply with the applicable quarterly reporting requirements of 40 CFR 60.7(c) and 60.334(c).

b. The Permittee shall promptly notify the Illinois EPA of deviations of an affected CT/HRSG system with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

i. Notification within 30 days for operation of an affected CT/HRSG system that was not in compliance with applicable requirements of Condition 7.1.6(c).

ii. Notification in the quarterly report for operation of an affected CT/HRSG system that was not in compliance with other applicable requirements of Condition 7.1.3, Condition 7.1.5, Condition 7.1.6, and deviations from applicable compliance procedures.

c. The Permittee shall submit a report by November 30 of each year, to the Illinois EPA that demonstrates that each affected CT/HRSG system has complied with Condition 7.1.3(f). These reports shall be accompanied by a certification statement signed by a responsible official for the Permittee as specified by 35 IAC 217.712(c), pursuant to 35 IAC 217.712(c), (d), and (e).

i. If the Permittee is demonstrating compliance on a unit-specific basis with Condition 7.1.3(f)(i)(A), this report shall contain the information specified by 35 IAC 217.712(d) including the heat input and NOx emissions of the affected CT/HRSG system for the ozone control period.

ii. If the Permittee is demonstrating compliance by means of "NOx averaging" as authorized by Condition 7.1.3(f)(i)(B), this report shall contain the information specified by 35 IAC 217.712(e) and other related information as follows:

A. In all cases, for each affected CT/HRSG system or other eligible EGU covered by this permit that is participating in the NOx averaging demonstration, the Permittee shall report the following:

I. Identification of the other EGU that are participating in the demonstration, including identification of the source that is the lead party for the demonstration and that is also taking responsibility for submitting the information required by Condition 7.1.10(c)(ii)(B) below.

II. A statement confirming that the unit is eligible to participate in an averaging demonstration, i.e., the unit is included in only one

demonstration [35 IAC 217.708(d)] and the Permittee is complying with applicable recordkeeping and reporting requirements for the unit, pursuant to 35 IAC 217.708(c) and (g).

III. The average NOx emission rate for the unit, with calculations and supporting information, as required by 35 IAC 217.712(e)(2) and (3), including the heat input and NOx emissions of the unit for the ozone control period.

IV. A statement whether the unit would show compliance on its own in the absence of averaging.

B. If the Permittee is the lead party for a NOx averaging demonstration, the Permittee shall report the following:

I. Copies of the information submitted by other parties for the EGU participating in the demonstration, which include all material required by Condition 7.1.10(c)(ii)(A) above (unless or except as this information is provided with the submittal by a person who is a responsible official for the EGU participating in the demonstration).

II. The averaged NOx emission rate for all EGU participating in the demonstration, with complete supporting calculations, as required by 35 IAC 217.712(e)(1).

III. A statement whether the demonstration shows compliance.

d. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning incidents when continued operation of an affected CT/HRSG system during malfunction or breakdown with excess emissions as addressed by Condition 7.1.3(h). These requirements do not apply to such excess emissions, if any, that occur during shutdown of the affected CT/HRSG system.

i. The Permittee shall notify the Illinois EPA's regional office by telephone (voice, facsimile

or electronic) as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.

ii. Upon conclusion of each incident that is two hours or more in duration, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, within 15 days providing a detailed explanation of the event, an explanation why continued operation of the affected CT/HRSG system was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected CT/HRSG system was taken out of service.

e. The Permittee shall furnish the Illinois EPA with written notification with regard to the SCR control systems as follows:

i. The Permittee shall notify the Illinois EPA of anticipated and actual start date of SCR control system when using for evaluation purpose.

ii. The Permittee shall submit evaluation report of the SCR system after completing the trial period.

iii. Notifications of the "long-term" use start date for the SCR systems.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.1.12 Compliance Procedures

a. Compliance with Condition 7.1.3(b), opacity standards, are demonstrated by proper operating conditions, normal work practices, and maintenance activities inherent in operation as further identified in Condition 7.1.5 and by recordkeeping requirements of Condition 7.1.9.

b. Compliance with Condition 7.1.3(c)(i)(A) and Condition 7.1.3(c)(ii)(A), NOx emissions standards, are demonstrated by the monitoring requirements of Condition 7.1.8(d) and by the recordkeeping requirements of Condition 7.1.9.

c. Compliance with Condition 7.1.3(c)(i)(B) and Condition 7.1.3(c)(ii)(B), SO_2 emission standards, are

demonstrated by the monitoring requirements of Condition 7.1.8 and by the recordkeeping requirements of Condition 7.1.9.

d. Compliance with Condition 7.1.3(d), CO emission standard for the affected HRSG, is demonstrated by proper operating conditions, normal work practices, and maintenance activities inherent in operation as further identified in Condition 7.1.5 and by recordkeeping requirements of Condition 7.1.9.

e. Compliance with Condition 7.1.3(f) is demonstrated by the monitoring requirements of Condition 7.1.8, the records required in Condition 7.1.9, and the reporting requirements of Condition 7.1.10(c).

f. Compliance with the emission limits in Conditions 5.5 and 7.1.6 shall be determined by using published emission factors, Illinois EPA approved stack test data, Illinois EPA approved measured emission factors, or approved manufacturer's data and the recordkeeping requirements in Condition 7.1.9.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after _____**{insert public notice start date}** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is an affected source under Title IV of the CAA and is subject to requirements pursuant to Title IV of the CAA as specified in Section 6.2. To the extent that the federal regulations promulgated under Title IV of the CAA, are inconsistent with the requirements of this permit, the federal regulations promulgated under Title IV of the CAA shall take precedence pursuant to Section 39.5(17)(j) of the Act.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements.

b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

c. The changes do not constitute a modification under Title I of the CAA.

d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change.

e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:

i. Describe the physical or operational change.

ii. Identify the schedule for implementing the physical or operational change.

iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply.

iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification.

v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or other wise identified in the condition of this permit. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the

Air Compliance Section of the Illinois EPA every six months as follows, unless more frequent submittal of such reports is required in Section 7 of this permit [Section 39.5(7)(f) of the Act]:

Monitoring Period	Report Due Date
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

a. The name and identification of the affected unit(s).

b. The person(s) who will be performing sampling and analysis and their experience with similar tests.

c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined.

d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations.

e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.

f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.

g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion

of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

a. The name and identification of the affected unit(s).

b. The date and time of the sampling or measurements.

c. The date any analyses were performed.

d. The name of the company that performed the tests and/or analyses.

e. The test and analytical methodologies used.

f. The results of the tests including raw data, and/or analyses including sample calculations.

g. The operating conditions at the time of the sampling or measurements.

h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

a. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:

i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency (MC 40)
Bureau of Air
Compliance & Enforcement Section (MC 40)
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

iii. USEPA Region 5 - Air Branch

USEPA (AR - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

c. Permit applications should be addressed to the Air Permit Section. As of the date of issuance of this permit, the address of the Air Permit Section is as follows:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
1021 North Grand Avenue East
P.O. Box 19506
Springfield, Illinois 62794-9506

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and

d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless this permit provides for such continued operation consistent with the Act and applicable Board regulations [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

d. Sample or monitor any substances or parameters at any location:

i. At reasonable times, for the purposes of assuring permit compliance; or

ii. As otherwise authorized by the CAA, or the Act.

e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and

f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].

b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 – Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both

currently and over the reporting period consistent with the conditions of this permit.

b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.

c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.

Note: For this purpose, emergency means a situation arising from sudden and reasonably unforeseeable events beyond the control of the source, as further defined by Section 39.5(7)(k)(iv) of the Act.

ii. The permitted source was at the time being properly operated;

iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any

steps taken to mitigate emissions, and corrective actions taken; and

iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;

b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;

c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and

d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(l), (n), and (o) of the Act].

10.0 ATTACHMENTS

10. 1 Attachment 1 Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.2 Attachment 2 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, www.epa.state.il.us. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

Guidance On Revising A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-revising.pdf

Guidance On Renewing A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-renewing.pdf

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit Form (CAAPP Form-199).

Application For A Construction Permit Form (CAAPP Form-199):

www.epa.state.il.us/air/caapp/199-caapp.pdf

10.3 Attachment 3 Acid Rain Program Permit

217-782-2113

ACID RAIN PROGRAM
PHASE II PERMIT

Ameren Services
Attention: Mr. Paul A. Agathen, Designated Representative
One Ameren Plaza,1901 Chouteau Ave.
P.O. Box 66149, MC 07
St. Louis, MO 63166-6149

Oris No.: 000862
IEPA ID No.: 077806AAA
Source/Unit: Grand Tower Power Plant, Two GT's @ Grand Tower
Date Received: May 30, 2000
Date Issued: March 26, 2001
Effective Date : January 1, 2000
Expiration Date: December 31, 2004

STATEMENT OF BASIS:

In accordance with Section 39.5(17)(b), Title IV; Acid Rain Provisions, of the Illinois Environmental Protection Act [415 ILCS 5/1 et Seq.] and Titles IV and V of the Clean Air Act, the Illinois Environmental Protection Agency is issuing this Acid Rain Program Phase II permit for the Grand Tower Power Station.

SULFUR DIOXIDE (SO_2) ALLOCATIONS AND NITROGEN OXIDE (NO_x) REQUIREMENTS FOR EACH AFFECTED UNIT:

		2000	2001	2002	2003	2004
UNITS CT01 AND CT02	SO_2 Allowances, under Tables 2, 3, or 4 of 40 CFR Part 73	N/A	N/A	N/A	N/A	N/A
	NO_x limit	These units are not subject to a NO_x emissions limitation under 40 CFR part 76.				

The construction permit # 99080101 issued by Illinois EPA contains provisions related to sulfur dioxide (SO_2) emissions. The acid rain permit also contains provisions related to sulfur dioxide (SO_2) emissions and requires the owners and operators to hold SO_2 allowances to account for SO_2 emissions beginning in the year 2000. An allowance is a limited authorization to emit up to one ton of SO_2 during or after a specified calendar year. Although this plant was not eligible for an allowance allocated by USEPA, the owners or operators may obtain SO_2 allowances to cover emissions from other sources under a marketable allowance program. The transfer of allowances to and from a unit account does not necessitate a revision to the unit SO_2 allocations in the permit (See 40 CFR 72.84).

COMMENTS, NOTES AND JUSTIFICATIONS: This permit does not affect the Grand Tower Power Plant's responsibility to meet all other applicable local, state, and federal requirements, including requirements addressing NO_x emissions.

PERMIT APPLICATION: The SO_2 allowance requirements and other standard requirements are attached and incorporated as part of this permit. The owners and operators of this source must comply with the standard requirements and special provisions set forth in the application.

If you have any questions regarding this permit, please contact Shashi Shah at 217-782-7395.

(ORIGINAL SIGNED BY DONALD E. SUTTON)

Donald E. Sutton, P.E.
Manager, Permits Section
Division of Air Pollution Control

DES:SRS
cc: Cecilia Mijares, USEPA Region V
John Justice, IEPA Region 3

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Phase II Permit Application

Page 1

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is: ☐ New ☒ Revised

STEP 1
Identify the source by plant name, State, and ORIS code.

Plant Name	State	ORIS Code
Grand Tower Power Station	IL	0866Z

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STEP 2
Enter the unit ID# for each affected unit, and indicate whether a unit is being repowered and the repowering plan being renewed by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

a	b	c	d	e
Unit ID#	Compliance Plan: Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	Compliance Plan: Repowering Plan	New Units: Commence Operation Date	New Units: Monitor Certification Deadline
07	Yes	No	Existing	
08	Yes	No	Existing	
09	Yes	No	Existing	
CT01	Yes	No	6/1/01	9/1/01
CT02	Yes	No	7/1/01	10/1/01
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

STEP 3
Check the box if the response in column c of Step 2 is "Yes" for any unit.

☐ For each unit that is being repowered, the Repowering Extension Plan form is included.

EPA Form 7510-16 (rev. 4-98)

Grand Tower Power Station
Plant Name (from Step 1)

STEP 4
Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Standard Requirements

Permit Requirements.

(1) The designated representative of each affected source and each affected unit at the source shall:
(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit.
(2) The owners and operators of each affected source and each affected unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
(ii) Have an Acid Rain Permit.

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each affected unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7, 72.8, or 72.14 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

(1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Grand Tower Power Station
Plant Name (from Step 1)

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7, 72.8, or 72.14, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO$_x$ averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7, 72.8, or 72.14 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Paul A. Agathen

Signature [signature] 5/23/00

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IEPA Form 7610-16 (rev. 4-98)

10.4 Attachment 4 USEPA letter of approval of alternative compliance methodology

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

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AIR ENFORCEMENT BRANCH,
U.S. EPA, REGION 5

Mr. Michael L. Menne, Manager
Environmental Safety and Health
Ameren Services
One Ameren Plaza
1901 Chouteau Avenue
PO Box 66149
St. Louis, MO 63166-6149

Dear Mr. Menne:

This letter responds to your February 14, 2001 request for Units 1 and 2, located at the Grand Tower Power Station, Jackson County, Illinois for approval of:

1. Alternative method of determining compliance with the emission limitation of 40 CFR Part 60, Section 60.44a(d)(1). Specifically, you proposed to determine compliance with the 1.6 lb/MW-hr NO_x limit of Subpart Da for the combined-cycle unit as a whole. The hourly NO_x emissions (lb/MW-hr) will be calculated based on the continuous emission monitoring system (CEMS) measurements at each stack coupled with the combined gross electrical output (MW-hr) and heat input to each combustion turbine (CT) and heat recovery steam generator (HRSG) boiler pair. Compliance with the Subpart Da NO_x limit would be demonstrated on a 24 (operating) hour rolling average.

As specified in the permit, a NO_x and diluent CEMS will be installed, certified, and maintained on each stack in accordance with 40 CFR Part 75. All cycle-response time tests, relative accuracy determinations, linearity checks, and daily calibrations tests will be conducted in accordance with the requirements in Appendix B of 40 CFR Part 75. In keeping with 40 CFR Part 60, Section 60.47a(c)(2), the missing data or bias adjustment procedures associated with 40 CFR Part 75 will not be used for the Subpart Da compliance determinations. CEMS availability and missing data will be handled in accordance with 40 CFR Part 60, Section 60.47a(f).

Reporting will be conducted in accordance with 40 CFR Part 60, Section 60.49a. As appropriate, the emissions (lb/10^6 Btu) from each unit will be calculated in accordance with Equation F-5 or F-6 of Appendix F of 40 CFR Part 75. Hourly emissions (lb) will be calculated using Equation F-24 of Appendix F of 40 CFR Part 75 based on heat input values calculated as specified below. The hourly emissions (lb) will then be divided by the combined gross electrical output (MW-hr) to yield values in terms of the standard (lb/MW-hr).

In lieu of installing a flow monitor on the stack as required by 40 CFR 60.47a(l), the hourly heat input for each unit will be calculated from fuel flow measurements using procedures in 40 CFR Part 75. Fuel flow meters will be installed and operated to measure natural gas flow to both the CT and HRSG duct burners in accordance with the procedures defined in Appendix D of 40 CFR Part 75. The gross calorific value (GCV) of the natural gas fired by the units will be determined as described in Section 2.3.4.1 of Appendix D of 40 CFR Part 75. The combined hourly heat input to each CT and HRSG boiler will be calculated using Equation D-6 from Appendix D of 40 CFR Part 75.

Pursuant to 40 CFR Part 60, Section 60.8(b)(3), we hereby approve the above request for Units 1 and 2 at the Grand Tower Power Station facility. The following discussion provides our rationale for this approval.

For each of the combined cycle units, 40 CFR Part 60, Subpart GG would apply to the gas turbine and Subpart Da would apply to the duct burner in the HRSG. However, the combined effluent for each unit is exhausted through a common stack. In addition, the thermal energy produced from the duct burner is combined with residual thermal energy from the turbine to produce steam in the HRSG. The steam from each unit's HRSG is used to produce electricity in a steam turbine/generator thus making it difficult to isolate electrical output due solely to the individual duct burners or turbines. In this case, an alternative method of determining compliance is appropriate. The Subpart GG emission limitation is 75 ppm @ 15 percent O_2 when the thermal efficiency is 25 percent or less and is equivalent to about 3.76 lb/MW-hr at 25 percent thermal efficiency. Because the Subpart GG emission limitation is adjusted upward for higher thermal efficiencies, the higher concentrations allowed at higher thermal efficiencies also remain equivalent to about 3.76 lb/MW-hr. Clearly the Subpart Da emission limitation of 1.6 lb/MW-hr is more restrictive than that of Subpart GG. You have proposed to determine the compliance status of the Subpart Da affected facility on the combined effluent emissions and the combined gross energy output. Your proposal apportions emissions within each unit equally based on the turbine and duct burner heat input. With this apportioning, it is theoretically possible to operate a combination of very "clean" turbine and "dirty" ductburner such that the 1.6 lb/MW-hr was just met using your alternative calculation procedure. This by itself would not assure that the ductburner (only) emissions were meeting the 1.6 lb/MW-hr emission limitation. However, since the combined unit must also meet the permit limits of 216.8 lb/hr for Unit 1 and 219.6 lb/hr for Unit 2 this effectively eliminates this theoretical concern at these units. Hence we find that your request satisfies the 40 CFR Part 60 Section 60.2 definition of alternative method and is expected to produce results adequate to determine compliance of these two affected facilities with the Subpart Da emission limitation and we therefore approve your request for these two units.

2. A waiver from the requirement of the initial performance test requirement of 40 CFR Part 60, Sections 60.8 and 60.335 for determining compliance with the emission limitation of 40 CFR Part 60, Section 60.332(a)(1).

We hereby deny your request to waive the performance test requirement required by 40 CFR Part 60, Sections 60.8 and 60.335 for Units 1 and 2 at the Grand Tower Power Station facility, however, we do waive the requirement to test at four turbine load conditions. Pursuant to 40 CFR Part 60 Section 60.8(b)(3) we approve as an alternative method of determining compliance, the use of the Part 75 certified NO_x and diluent CEMS as described above for

demonstrating initial compliance with the NO_x limitation of 40 CFR Part 60, Section 60.332(a)(1). The following discussion provides our rationale for this approval.

You propose to continuously monitor each unit's combined effluent NO_x emission and compare it to the 1.6 lb/MW-hr emission limit on a 24 (operating) hour rolling average basis. Since this more restrictive emission limit is applied to the combined emissions of the CT and HRSG boiler, assuming you successfully meet this requirement, we find that this will sufficiently demonstrate compliance with 40 CFR Part 60, Section 60.332(a)(1) for Units 1 and 2 CT at the Grand Tower Power Station facility. If we assume a worst case scenario where all the combined emissions are attributed to the CT alone and none to the HRSG, we still conclude that if the combined emissions are meeting the 1.6 lb/MW-hr emission limit, then the CT alone is meeting the Section 60.332(a)(1) emission limit too.

To demonstrate initial compliance, 40 CFR §60.335(c)(3) requires an affected source to use Method 20. Once a NO_x CEMS has been certified, however, the main difference between using the monitor or Method 20 to collect data for the initial performance test involves the number of traverse points at which the sampling is conducted. Although a CEMS extracts the sample from a single point while Method 20 requires eight traverse points, part of the CEMS certification process involves verifying that the CEMS probe is collecting a sample from a representative location in the stack. The verification of the representative sampling location during CEMS certification provides reasonable assurance that the data collected is appropriate for demonstrating initial compliance.

These two units will provide realtime data on NO_x emissions for any given time of operation. This data provides credible evidence which can be used to determine the combustion turbines compliance status. The availability of this continuous information through the use of NO_x CEMS after the initial performance testing is sufficient to justify waiving the requirement to test at four turbine load conditions for initial compliance demonstration.

3. Since the units will use neither steam nor water injection, an alternative to continuously monitor the NO_x concentration in the combined-cycle effluent at each unit's stack in lieu of the fuel nitrogen monitoring and reporting required in 40 CFR Part 60, Sections 60.334 and 60.335. AEG will operate the combined-cycle units to maintain NO_x concentrations below the limitation defined under 40 CFR Part 60, Section 60.332(a)(1) at each stack on a 24-hour rolling average basis. The reporting and record keeping will be conducted in accordance with 40 CFR Part 75, Subpart F and Appendix B, Section 1. No correction to International Organization for Standardization (ISO) conditions will be made to the reported data.

Pursuant to 40 CFR Part 60, Section 60.13(i), we hereby approve your request for Unit 1 and 2 at the Grand Tower Power Station facility. Because the emissions are expected to be well below the allowed Section 60.332(a)(1) emission limitation to assure compliance with the more restrictive 1.6 lb/MW-hr emission limitation, no ISO corrections are required to be made to the data. However, you must keep records of the data that would enable you to make the correction at the request of U.S. EPA or a State or Local Agency. The data required include ambient temperature, ambient humidity, and combustor inlet pressure. However, you may record ambient pressure in lieu of combustor inlet pressure. In that case, if we ask you to adjust to ISO

conditions, you may substitute the ratio of [101.3kilopascals/ambient pressure] for the ratio Pr/Po in making the correction to ISO conditions.

If you have questions about this letter, contact Kevin Vuilleumier, US EPA, Region 5, AE-17J, 77 West Jackson Boulevard, Chicago, IL, 60604-3507, E-Mail address vuilleumier.kevin@epa.gov, or Terry Harrison at US EPA, Emission Measurement Center, MD-19, Research Triangle Park, NC, 27711, E-Mail address harrison.terry@epa.gov.

Sincerely,

for J. David Mobley, Acting Director
Emissions, Monitoring & Analysis Division

George Czerniak, Chief
Enforcement Branch, Air Division, Region 5

cc: Dan Chadwick, OC, OECA (MC 2223A)
Jim Eddinger ESD (MD 13)
Terry Harrison, EMAD (MD 19)
Brent Marable, Region 5 (AE-17J)
Sims Roy, ESD (MD 13)
Rafael Sanchez, OC, OECA (MC 2223A)
Donald Sutton, Region 5 (AE-17J)
Kevin Vuilleumier, Region 5 (AE-17J)